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10/658,310	09/09/2003	Ed H. Frank	14177US02	2145

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EXAMINER
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JOHNSON, CARLTON

ART UNIT	PAPER NUMBER
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2136

MAIL DATE	DELIVERY MODE
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06/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/658,310

Applicant(s)

FRANK ET AL.

Examiner

Carlton V. Johnson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responding to application papers filed on **4-26-2007**.
2. Claims **1 - 42** are pending. Claims **1 - 29, 33, 35, 39, 42** have been amended.  
Claims **1, 15, 29** are independent.

### ***Response to Remarks***

- 3 The following is in response to remarks dated 4-26-2007.

3.1 Applicant argues, the referenced prior art does not disclose authenticating said originating access device using a second PHY channel. (see Remarks Page 14)

The Chandrashekhar prior art discloses an authentication procedure over a network communications channel. (see Chandrashekhar paragraph [0057], lines 1-5; paragraph [0062], lines 1-4) A physical channel is a requirement in order to perform network communications between two endpoints.

The Chandrashekhar prior art discloses authenticating said originating access device using a first physical (PHY) channel for a request for VPN service and a second physical (PHY) channel for the authentication procedure. (see Chandrashekhar Figure 3; paragraph [0057], lines 1-5; paragraph [0062], lines 1-4) The authentication procedure is performed by the VPN manager. The VPN manager utilizes an authentication server, which is connected by a communications bus or communications path. This is a different communications path than utilized for the request for VPN service from user1 to the VPN manager (enhanced application portal). The

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Chandrashekhar prior art discloses the claim limitation of a first channel for processing a request and a second channel for authentication.

3.2 Applicant argues, the referenced prior art does not disclose network communications over one or more of said first PHY channel, said second PHY channel and/or said third PHY channel. (See Remarks Page 15)

Applicant has amended claim limitations from "*at least one*" to "*one or more*". Both of these claim limitation disclose that the referenced prior art can disclose only one of these network communications paths and the claim limitation is satisfied. A physical communications path is a requirement to host a communications session. (see Chandrashekhar Figure 3)

3.3 Remaining arguments address the obviousness rejections of claim limitations. (see Remarks Page 16-18) A case for obviousness and the rejection of Claims 2 - 5, 10, 11, 16 - 19, 24, 25, 30 - 33, 38, 39 has been established due to the successful upholding of the rejections of Claims 1, 6-9, 12-15, 20-23, 26-29, 34-37 and 40-42.

3.4 The examiner has considered the applicant's remarks concerning a method and system for providing multiple encryptions in a multi-band multi-protocol hybrid wired/wireless network. Applicant's arguments have thus been fully analyzed and considered but they are not persuasive.

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After an additional analysis of the applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of Chandrashekhar (20030140131) and He (6,088,451) discloses the applicant's invention including disclosures in Remarks dated April 26, 2007.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims **1, 6 - 9, 12 - 15, 20 - 23, 26 - 29, 34 - 37, 40 - 42** are rejected under 35 U.S.C. 102(e) as being anticipated by **Chandrashekhar et al.** (US PG PUB No. **20030140131**).

**Regarding Claims 1, 15, 29**, Chandrashekhar discloses a method, machine-readable storage having stored upon a computer program having at least one code section, system for multiple encryption in a multi-band multi-protocol hybrid wired/wireless network, the method comprising: receiving on a first PHY channel of an access point, a request for initiation of a communication session from an originating access device;

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authenticating said originating access device using a second PHY channel; and hosting said communication session over one or more of said first PHY channel, said second PHY channel and/or a third PHY channel. (see Chandrashekhar paragraph [0054], lines 3-5; paragraph [0054], lines 10-12: hybrid communications network; paragraph [0040], lines 4-6; paragraph [0108], lines 1-5: wireless/wired communications; paragraph [0056], lines 1-3: request for communications service; paragraph [0048], lines 1-7: software, implementation means); Figure 3)

**Regarding Claims 6, 20**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15, comprising receiving an identification of said originating access device by said access point. (see Chandrashekhar paragraph [0073], lines 13-16: identification for originating device, user; paragraph [0037], lines 4-15: access network (i.e. access point))

**Regarding Claims 7, 21, 35**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having one code section, system according to claims 6, 20, 34, wherein said identity of said originating access device is one or more of a WEP key, a MAC address, and/or an IP address. (see Chandrashekhar paragraph [0073], lines 13-16; paragraph [0082], lines 14-16: IP address utilized as identification)

**Regarding Claims 8, 22**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15, comprising acknowledging said received request on said first PHY channel. (see Chandrashekhar paragraph [0057], lines 3-7: response to received request (i.e. response, ACK))

**Regarding Claims 9, 23**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15, comprising determining a type of traffic generated by said originating access device on said first PHY channel. (see Chandrashekhar paragraph [0028], lines 13-15: type of traffic, VPN; paragraph [0054], lines 7-12: between communications endpoints)

**Regarding Claims 12, 26**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 1, 15, further comprising establishing at least one virtual channel between said originating access device and a terminating access device. (see Chandrashekhar paragraph [0054], lines 7-12: establish circuit between originating device and terminating device (i.e. endpoints, communications circuit); paragraph [0040], lines 4-6: dial-up user, physical circuit))

**Regarding Claims 13, 27**, Chandrashekhar discloses the method, machine-readable

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storage having stored upon a computer program having at least one code section according to claims 12, 26, comprises tunneling information between said originating access device and said terminating access device. (see Chandrashekhar paragraph [0032], lines 2-5; paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: tunneling between originating and termination devices (i.e. endpoints))

**Regarding Claims 14, 28**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 12, 26, comprising establishing at least a portion of said at least one virtual channel over at least a portion of one of said first PHY channel, said second PHY channel or said third PHY channel. (see Chandrashekhar paragraph [0028], lines 13-15; paragraph [0054], lines 7-12: virtual channel between originating and terminating devices (i.e. VPN tunnel, virtual channel endpoints))

**Regarding Claim 34**, Chandrashekhar discloses the system according to claim 29, wherein said at least one receiver is adapted to receive an identification of said originating access device by said access point. (see Chandrashekhar paragraph [0073], lines 13-16: identification for originating device, user; paragraph [0037], lines 4-15: access network (i.e. access point))

**Regarding Claim 36**, Chandrashekhar discloses the system according to claim 29, wherein said at least one receiver is adapted to acknowledge said received request on

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said first PHY channel. (see Chandrashekhar paragraph [0057], lines 3-7: response to received request (i.e. response, ACK))

**Regarding Claim 37**, Chandrashekhar discloses the system according to claim 29, wherein said at least one authenticator is adapted to determine a type of traffic generated by said originating access device on said first PHY channel. (see Chandrashekhar paragraph [0028], lines 13-15: type of traffic, VPN; paragraph [0054], lines 7-12: between communications endpoints)

**Regarding Claim 40**, Chandrashekhar discloses the system according to claim 29, wherein at least one receiver is adapted to establish at least one virtual channel between said originating access device and a terminating access device. (see Chandrashekhar paragraph [0054], lines 7-12: establish circuit between originating device and terminating device (i.e. endpoints, communications circuit); paragraph [0040], lines 4-6: dial-up user, physical circuit))

**Regarding Claim 41**, Chandrashekhar discloses the system according to claim 40, wherein said at least one receiver is adapted to tunnel information between said originating access device and said terminating access device. (see Chandrashekhar paragraph [0032], lines 2-5; paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: tunneling between originating and termination devices (i.e. endpoints))

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**Regarding Claim 42**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 40, wherein said at least one receiver is adapted to establish at least a portion of said at least one virtual channel over at least a portion of one of said first PHY channel, said second PHY channel and/or said third PHY channel. (see Chandrashekhar paragraph [0028], lines 13-15; paragraph [0054], lines 7-12: virtual channel between originating and terminating devices (i.e. VPN tunnel, virtual channel endpoints))

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims **2 - 5, 10, 11, 16 - 19, 24, 25, 30 - 33, 38, 39** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chandrashekhar** in view of **He et al.** (US Patent No. **6,088,451**).

**Regarding Claims 2, 16**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section

according to claims 1, 15. (see Chandrashekhar paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: communications between endpoints; paragraph [0048], lines 1-7: software, implementation means) Chandrashekhar does not specifically disclose generating at least one encryption/decryption key. However, He discloses wherein further comprising generating at least one encryption/decryption key for use during said communication session. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhar as taught by He to enable the generation of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63: “ ... *It also supports the implementation of network-wide centralized user administration and management, authentication, credential/privilege control and access to individual network elements, which is highly desirable for a large and complex network. ...* ”)

**Regarding Claims 3, 17,** Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 2, 17, wherein said authenticating comprises requesting authentication information from an authentication server. (see Chandrashekhar paragraph [0041], lines 1-5; paragraph [0057], lines 1-3: utilizing an authentication server for authorization)

**Regarding Claims 4, 18,** Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section according to claims 3, 17, wherein said authenticating comprises delivering at least a portion of said authentication information received from said authentication server to said originating access device via said second PHY channel. (see Chandrashekhar paragraph [0057], lines 3-7: appropriate indication returned to user)

**Regarding Claims 5, 19, 33,** Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 4, 18, 32. (see Chandrashekhar paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: communications between endpoints) Chandrashekhar does not specifically disclose delivering said encryption/decryption key. However, He discloses wherein comprising delivering said at least one encryption/decryption key to said originating access device via one of said first PHY channel or said second PHY channel. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: delivering encryption/decryption key; Figure 3)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhar as taught by He to enable the delivery of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential

management and network element access. (see He col.1, lines 59-63)

**Regarding Claims 10, 24, 38**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 9, 23, 37, further comprising at least one key dependent on said determined traffic type. (see Chandrashekhar paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: communications between endpoints; paragraph [0028], lines 13-15: virtual channel between originating and terminating device (i.e. VPN tunnel, virtual channel endpoints): key utilized for VPN type traffic, encryption key parameter) Chandrashekhar does not specifically disclose generating at least one encryption/decryption key. However, He discloses wherein comprising generating at least one encryption/decryption key. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhar as taught by He to enable the generation of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63)

**Regarding Claims 11, 25, 39**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claims 10, 24, 38. (see Chandrashekhar paragraph [0054],

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lines 7-12; paragraph [0081], lines 7-9: communications between endpoints)

Chandrashekhar does not specifically disclose the distribution of generated encryption/decryption key. However, He discloses wherein comprising distributing said generated at least one encryption/decryption key via at one or both of said second PHY channel and/or said third PHY channel. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: delivering (i.e. distributing) generated encryption/decryption key; Figure 3)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhar as taught by He to enable the generation of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63)

**Regarding Claim 30**, Chandrashekhar discloses the method, machine-readable storage having stored upon a computer program having at least one code section, system according to claim 29. (see Chandrashekhar paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: communications between endpoints; paragraph [0048], lines 1-7: software, implementation means) Chandrashekhar does not specifically disclose generating at least one encryption/decryption key. However, He discloses wherein further comprising generating at least one encryption/decryption key for use during said communication session. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhar as taught by He to enable the generation of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63)

**Regarding Claim 31**, Chandrashekhar discloses the system according to claim 30, wherein said at least one authenticator is adapted to request authentication information. (see Chandrashekhar paragraph [0041], lines 1-5; paragraph [0057], lines 1-3: utilizing an authentication server for authorization)

**Regarding Claim 32**, Chandrashekhar discloses the system according to claim 31, wherein said authenticator is adapted to deliver at least a portion of said authentication information received from said authentication server to said originating access device via said second PHY channel. (see Chandrashekhar paragraph [0057], lines 3-7: appropriate indication returned to user)

**Regarding Claim 38**, Chandrashekhar discloses the system according to claims 37, further comprising at least one key dependent on said determined traffic type. (see Chandrashekhar paragraph [0054], lines 7-12; paragraph [0081], lines 7-9: communications between endpoints; paragraph [0028], lines 13-15: virtual channel between originating and terminating device (i.e. VPN tunnel, virtual channel endpoints):

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key utilized for VPN type traffic, encryption key parameter) Chandrashekhkar does not specifically disclose generating at least one encryption/decryption key. However, He discloses wherein said at least one authenticator is adapted to generate at least one encryption/decryption key. (see He col. 18, lines 2-5; col. 19, lines 8-11; col. 20, lines 57-61: generation encryption/decryption key)

It would have been obvious to one of ordinary skill in the art to modify Chandrashekhkar as taught by He to enable the generation of an encryption/decryption key. One of ordinary skill in the art would have been motivated to employ the teachings of He in order to a network-wide centralized user administration and authentication, credential management and network element access. (see He col.1, lines 59-63)

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlton V. Johnson whose telephone number is 571-270-1032. The examiner can normally be reached on Monday thru Friday , 8:00 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Carlton V. Johnson  
Examiner  
Art Unit 2136

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CVJ

June 11, 2007

A handwritten signature in black ink, appearing to be 'C. J.', written over the date.

NASSER MOAZZAMI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

A handwritten signature in black ink, appearing to be 'N. Moazzami', written over the printed name.  
6,14,07